

REMARKS

Claim Rejections

Claims 7-8 and 15-16 are rejected under 35 U.S.C. §103 as being allegedly unpatentable by Hansen (U.S. 6,664,289 B2).

Amended Claims

By this Amendment, Applicants have canceled claims 16 and have amended claim 15 and added claims 17-22, which define subject matter that is patentably distinguishable over the cited prior art.

The cited reference to Hansen discloses an aqueous solution having one or more halogen salts of sodium chloride, sodium bromide, sodium iodide, zinc chloride, zinc bromide or zinc iodide, and optionally zinc gluconate. However, Hansen fails to teach or suggest a composition having:

a metal ionic compound of formula $M^{+a}X^{-b}$, where M is Ni, Co, Mg, Mn, Cr, Ca, Fe, Cu, Ti, Al, Sb, Sn, Pb, Pt, Pd, Os, Ru, Cd, Rh, Ir, or NH_4 ; and X is nitrate, sulfate, sulfite, acetate, oxalate, carboxylate, succinate, phosphate, pyrophosphate, ascorbate, ethylenediamine tetraacetate, fumarate, or lactate; or

an ionic compound of formula NX, where N is Li or K; and X is sulfite, acetate, succinate, pyrophosphate, perchlorate, ascorbate, ethylenediamine tetraacetate, fumarate, or lactate; or

an additive of formula RY_z , where R is Li, K, Mg, or Ca, and Y is nitrate, sulfate, carboxylate, carbonate, bicarbonate, phosphate, dihydrogen phosphate, hydrogen phosphate, or oxalate.

Additionally, the cited reference does not teach or suggest a modification of its teachings that would lead one having ordinary skill in the art to arrive at Applicants' claimed invention. Applicants hereby respectfully submit that there is insufficient motivation to modify the cited prior art to render obvious Applicants' claims.

Supererogatorily, Hansen discloses a composition mainly using the oxidizing ability of hypochlorite to effect the antibacterial function. In marked contrast, it is believed that the present composition functions as a catalyst to excite molecular

oxygen in the air that becomes an oxygen free radical anion (O_2^-), which in turn destroys the bacterial, virus, and fungi due to the anion's instability and activity. See, e.g., attachments 1 and 2. The present invention can provide significant and unexpected advantages in that the oxidation of a photo-catalyst generally requires exposure to UV light, but the present invention can exhibit a bactericide effect without UV lighting.

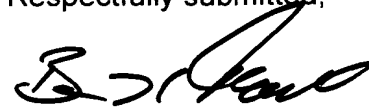
Summary

In view of the foregoing amendments and remarks, Applicants submit that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicants' local attorney be contacted at the exchange listed below.

Respectfully submitted,

Date: May 26, 2006

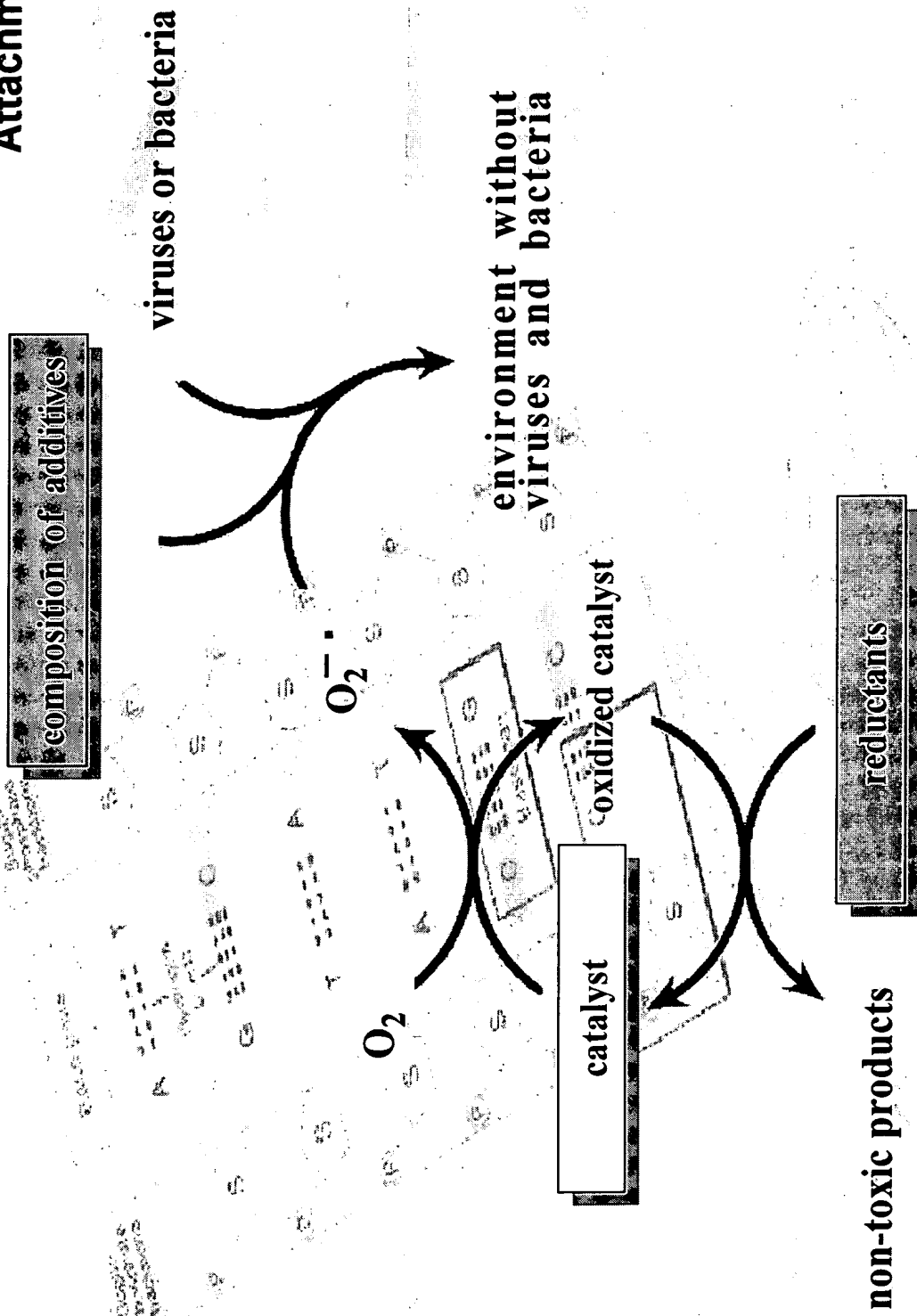
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Attachment 1



Trilogy of Killing Viruses

